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[54] CHICKEN-DERIVED IMMUNOGLOBULIN-PRODUCING CELL LINES

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[*] Notice: The portion of the term of this patent

subsequent to Jul. 2, 2008 has been

disclaimed.

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[57] ABSTRACT

The present invention involves a method for preparing antibody-producing chicken cell clones. This method comprises a series of steps including initially immunizing a first chicken with a desired antigen. A population of antibody-producing lymphocytes from bursa or spleen of the first chicken is separated.

The antibody-producing lymphocyte population is then infected with helper-free reticuloendotheliosis virus REV-T or helper-free reticuloendotheliosis virus REV-T and CSV (preferably REV-T(CSV) and transplanted into a second chicken, the second chicken having been pretreated to remove normal B cells. The transplanted lymphocytes to proliferate in the second chicken, preferably for a period of at least about two weeks.

The lymphocytes from spleen, bursa or peripheral blood of the second chicken are isolated and plated out, for example in microtiter plates. Cell clones producing antibody such as IgG or IgM directed against the desired antigen are then selected. The isolation step most preferably involves cell culturing in the microtiter plates for a period of at least about one week.

17 Claims, 22 Drawing Sheets